

WHAT IS CLAIMED IS:

1. An insulation product comprising
at least one layer containing first fibers each having a diameter of from 5 μm to about 2 μm ; and
at least one layer containing second fibers each having a diameter of from greater than 5 μm to about 16 μm .
2. The product according to Claim 1, wherein
the at least one layer containing second fibers comprises two layers containing the second fibers; and
one of the at least one layer containing first fibers is sandwiched between the two layers containing the second fibers.
3. The product according to Claim 1, further comprising
a reinforcement layer comprising a scrim or non-woven material, wherein
one of the at least one layer containing first fibers is in direct contact with the reinforcement layer.
4. The product according to Claim 1, further comprising
a reinforcement layer comprising a scrim or non-woven material, wherein
one of the at least one layer containing second fibers is in direct contact with the reinforcement layer.
5. The product according to Claim 1, wherein the first fibers are about 1 cm to about 5 cm long.
6. The product according to Claim 1, wherein the first fibers comprise a glass.
7. The product according to Claim 6, wherein the glass is selected from the group consisting of an E-glass, a C-glass, and a boron doped C-glass.

8. The product according to Claim 1, wherein the second fibers are about 2 cm to about 15 cm long.
9. The product according to Claim 1, wherein the second fibers comprise a glass.
10. The product according to Claim 9, wherein the glass is selected from the group consisting of an E-glass, a C-glass, and a boron doped C-glass.
11. The product according to Claim 1, wherein each of the first fibers and the second fibers is an extruded fiber.
12. The product according to Claim 1, wherein the at least one layer containing first fibers further comprises a binder.
13. The product according to Claim 12, wherein the binder comprises a polymer.
14. The product according to Claim 1, wherein the at least one layer containing second fibers further comprises a binder.
15. The product according to Claim 14, wherein the binder comprises an organic polymer.
16. The product according to Claim 1, further comprising a binder joining the at least one layer containing first fibers to the at least one layer containing second fibers.
17. The product according to Claim 1, wherein the at least one layer containing first fibers and the at least one layer containing second fibers are laminated on a means for reinforcing the insulation product.
18. The product according to Claim 1, wherein the at least one layer containing first fibers is non-woven, and the at least one layer containing second fibers is non-woven.

19. A method of making an insulation product, the method comprising laminating a first layer and a second layer, where the first layer contains first fibers each having a diameter of from 5 μm to about 2 μm and the second layer contains second fibers each having a diameter of from greater than 5 μm to about 16 μm ; and forming the insulation product of Claim 1.

20. A method of making a insulation product, the method comprising a step for laminating a first layer and a second layer, where the first layer contains first fibers each having a diameter of from 5 μm to about 2 μm and the second layer contains second fibers each having a diameter of from greater than 5 μm to about 16 μm ; and forming the insulation product of Claim 1.